

Remarks:

This application has been reviewed carefully in view of the Office Action mailed March 7, 2006 ("the Office Action"). The Office Action recites that provisional
5 application number 60/212,066 lacked adequate support under 35 U.S.C. § 112, 2nd paragraph, for claims 2-8, 12, 17 and 38-39 of the application. Claims 28 and 41 were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants claim as the invention. Claims 1-6, 13, 18, 20, 22-25, 29, 33-35 and 43-44 were rejected under 35 U.S.C. § 102(b) as being anticipated by Henze
10 (US 5,926,004). Claims 7-8 and 40 were rejected under 35 U.S.C. § 103(a) as being obvious over Henze and Matsko (US 4,351,013). Claims 9-10 were rejected under 35 U.S.C. § 103(a) as being obvious over Henze and Sullivan (US 4,324,987). Claims 11-12 were rejected under 35 U.S.C. § 103(a) as being obvious over Henze and Hammer (US 4,345,162). Claims 14, 16-17, 21, 23, 36 and 38-39 were rejected under
15 35 U.S.C. § 103(a) as being obvious over Henze and Gilbert (US 6,357,011). Claims 15 and 37 were rejected under 35 U.S.C. § 103(a) as being obvious over Henze and Gilbreth (US 2003/0007369). Claims 19, 27 and 30-32 were rejected under 35 U.S.C. § 103(a) as being obvious over Henze and Hunter (US 5,724,237). Claim 26 was rejected under 35 U.S.C. § 103(a) as being obvious over Henze. Claims 41-42 were rejected under
20 35 U.S.C. § 103(a) as being obvious over Henze, Matsko and Gilbreth.

The applicants note with appreciation that claim 28 was considered allowable if amended to depend from claim 26 to overcome the above stated 112 2nd paragraph rejection, and rewritten in independent form to include all the limitations of the base claim
25 and any intervening claims.

The above-described objections and rejections are addressed as follows:

1. CLAIM AMENDMENTS FOR REASONS OTHER THAN PATENTABILITY

30 A number of claims have been amended to improve readability, and to better claim the invention. For example, claim 1 has been amended to recite "a system controller including a power controller configured to regulate the power ...", while allowable claim 28 has been amended to recite that "the first charging module is separate from the ~~system~~

power controller, and wherein the ~~system~~ power controller and the module controller for the first charging module communicate". This description more accurately describes the invention, as disclosed in the specification (see, e.g., page.11, and FIGS. 4 and 5). More particularly, the control system (i.e., the system controller) has a power controller, and as
5 is depicted, this power controller can be separate from a module controller.

2. CLAIMS CANCELED TO SIMPLIFY THE APPLICATION

A number of claims have been canceled from the application, even though many of
10 them depend from claims the applicants continue to pursue. These claims were not canceled for reasons of patentability. Rather, with a number of new claims added to the application, the applicants preferred to focus the application and limit prosecution to a number of claims that could be discussed within a reasonable time frame.

15 3. PRIORITY

In the Office Action alleges that provisional application number 60/212,066 lacked adequate support under 35 U.S.C. § 112, 2nd paragraph, for claims 2-8, 12, 17 and 38-39 of the application. Of these, only claim 17 remains open for discussion.
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Claim 17 was recited, but not directly discussed in the discussion of priority within the Office Action. Since claim 17 did not depend from a claim that was recited or discussed, the applicants will assume that the actual content of claim 17 (rather than the content of the claims from which claim 17 depends) is at issue.
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Disclosure that the applicants were in possession of the presently claimed invention of claim 17 occurs in the last paragraph on page 6 of the 60/212,066 application. A copy of that paragraph is printed below with highlighting to note some relevant portions.

30 Furthermore, if power ports of the present invention are designed to be capable of both charging or discharging the electric powered vehicles, (i.e., bi-directional operating power ports), then the chargers can supplement the available utility power with power that is stored in one or more vehicles that do not presently need to be fully charged. This
35 advantageously allows charging strategies wherein vehicles that are not

presently in use are charged when the charging capacity is available, and are used to provide even greater capacity for charging other vehicles when capacity is needed. By employing this strategy, the charging system's capacity can be more easily scheduled to take full advantage of periods of lower charging usage. This concept can also be implemented using storage batteries that are dedicated and maintained for this purpose.

The applicants respectfully request the Examiner acknowledge that the provisional application upon which priority is claimed provides adequate support under 35 U.S.C. § 112 for the claim language of claim 17.

4. § 112 REJECTION

Claims 28 and 41 were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicants claim as the invention. The applicants have amended claim 28 to depend from claim 26, as suggested by the Examiner. The applicants respectfully request the rejection of claim 28, under 35 U.S.C. § 112, be withdrawn.

5. CLAIM 1, NEW CLAIM 45, AND CLAIMS DEPENDING THEREFROM

Claim 1, as amended, recites the following features (which are similar to features recited in claim 45):

a plurality of secondary power ports configured to distribute power from the primary power port to the plurality of batteries, each secondary power port being characterized by a power rating, wherein the sum of the secondary power port power ratings exceeds the primary power port power rating; and

a system controller including a power controller **configured to regulate the power received** from the primary power port **to below the primary port power rating** by limiting the power distributed by one or more of the secondary power ports. (emphasis added)

The applicants note that the amendments to claim 1 are supported throughout the application, such as in the second full paragraph on page 9, and likewise, in the first full paragraph on page 18. For the Examiner's convenience, the applicants further note that the number of primary power ports is a distinction between claims 1 and 45.

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The cited art fails to disclose a power controller configured to regulate the power received from a primary power port. The Henze device lacks a power converter capacity to exceed the primary port power rating, and thus such a power controller configuration would lack a purpose. For example, in Fig. 4 of Henze, the combined capacity of the power converters is 50.0 KW, which is not disclose to be in excess of the primary port power rating.

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Because the cited art fails to disclose a power controller configured to regulate the power received from a primary power port, the applicants respectfully request the rejections of independent claim 1 and dependent claims 13-17, 20-22, 24, 26, 28 and 33 be withdrawn.

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6. NEW CLAIMS 59-63

The applicants note that new claim 59 is substantially similar to previously allowed claim 28, but with the additional reference to a power converter, as discussed above in Section 1 of this Amendment. New claim 60 recites many, but not all, of the features recited in new claim 59.

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New claims 61-63 pertain to a charging system including a system controller configured to regulate the power that a plurality of converters draws such that if the sum of power ratings of secondary power ports simultaneously used to charge batteries exceeds a primary power port power rating, the power received from the primary power port does not exceed the primary power port power rating. The cited art fails to teach or make obvious such an invention.

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7. REQUEST FOR INTERVIEW

In light of Applicant's amendments and arguments, the applicants believe that the claims are now in condition for allowance. Nevertheless, during the last six years of application pendency the assignee of this application has changed from a newcomer in the vehicle charging system market to a player of significant market share. The assignee is therefore understandably interested in obtaining patent protection as soon as possible. Therefore, if the Examiner has open issues that merit discussion, or if the Examiner believes that claims of the application should again be rejected, then the applicants request a telephonic interview to try and efficiently resolve all open issues.

8. CONCLUSION

In view of the foregoing, the applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BUCHANAN et al.

By: 

John A. Griecci

Registration No. 39,694

For: The Law Office of John A. Griecci

703 Pier Avenue, Suite B #657
Hermosa Beach, CA 90254
(310) 376-6527